

Wired Remote Control
MWR-WE10

Air Conditioner installation manual

imagine the possibilities

Thank you for purchasing this Samsung product.

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DB98-32811A(2)



Safety Information

This installation manual explains how to install a Wired Remote Controller connected to the indoor unit of your Samsung system air conditioner.

Please read this manual thoroughly before installing the product.

(Please refer to appropriate installation for any optional product installation.)

 WARNING	Hazards or unsafe practices that may result in severe personal injury or death .
 CAUTION	Hazards or unsafe practices that may result in minor personal injury or property damage .

WARNING

Contact a service center for installation.

- ▶ Potential risk of malfunction, water leak, electric shock and fire.

Install the product with proper power supply.

- ▶ Potential risk of fire or product damage.

Consult the place of purchase or a contact center to disassemble or repair the product.

- ▶ Potential risk of malfunction, electric shock, or fire.

The electric work must be done by qualified person according to national wiring regulations and installation guide.

- ▶ If an unauthorized person performs the installation, any resulting defects can cause malfunctions, electrical shocks, or fire accidents.

Install the product on a hard and even place that can support its weight.

- ▶ If the place cannot support its weight, the product may fall down and it may cause product damage.

Do not move or reinstall the product on your discretion.

- ▶ Potential risk of electric shock or fire.

Check if the installation work is done correctly according to the installation manual.

- ▶ Incorrect installation may cause electric shock or fire.

When you want to dispose your Wired Remote Controller, ask the service center.

CAUTION

Do not install the product where there's combustible gas.

- ▶ Potential risk of fire and explosion.

Ensure no water gets into the Wired Remote Controller.

- ▶ Potential risk of electric shock or fire.

Install the air conditioner away from direct exposure to sunlight, in room temperature range of 0°C(32°F)~39°C(102°F).

- ▶ Potential risk of electric shock or malfunction.

Do not handle the product with sharp objects.

- ▶ Potential risk of electric shock or product damage.

Do not install the product in areas exposed to oil or vapor.

- ▶ Potential risk of product damage or malfunction.

Do not put undue stress on the power cable.

- ▶ Potential risk of broken cable and fire.

Do not install the product in areas with frequent use of acid or alkali spray.

- ▶ Potential risk of electric shock or product malfunction

Do not connect power cable to a communication terminal.

- ▶ Potential risk of fire.

Be cautious not to interfere any other electrical devices if the product is installed in a place such as hospital.

- ▶ Potential risk of product malfunction.

Wired Remote Controller Installation

Optional accessories

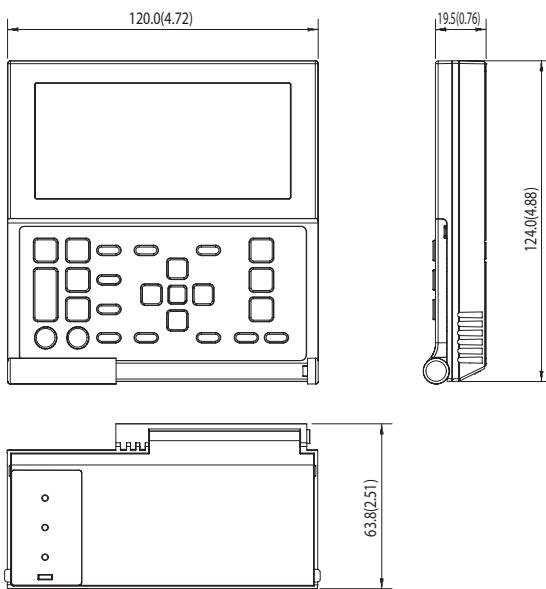
Wired Remote Controller (1)	Cable Tie (2)	Cable Clamp(3)	M4X16 Screw (5)	User Manual (1)	Installation Manual (1)	U Terminal (6)
						



- The Wired Remote Controller should be installed by an installation expert.
- Check and confirm the power is off before installing your Wired Remote Controller.
- Install the Wired Remote Controller cables in accordance with the electrical wiring rules, and allow it to pass through the inner area of the wall so that other people can't reach it.

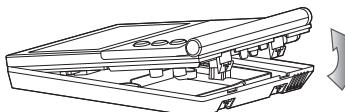
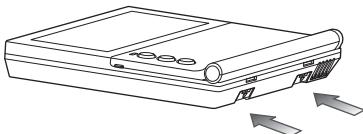
External Dimensions

[Unit : mm(inch)]



Wired Remote Controller Installation

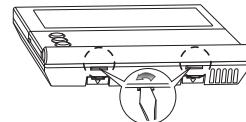
- Push the two hooks at the bottom of your Wired Remote Controller at the same time, and then pull up the front cover to separate it from the rear cover.



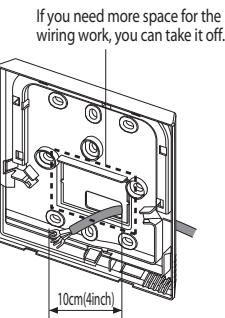
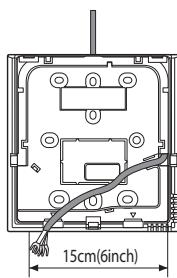
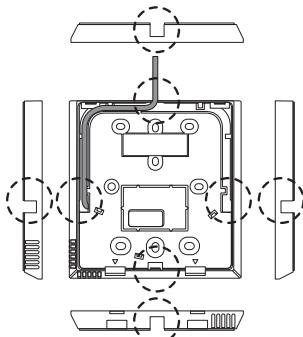
* Push the two hooks at the same time.



- Insert a flat head screwdriver into the square groove in the upper area of the hook to disassemble it easily.



- Arrange the power cable and the communication cable so that they fit in the housing along the edges of the rear cover.



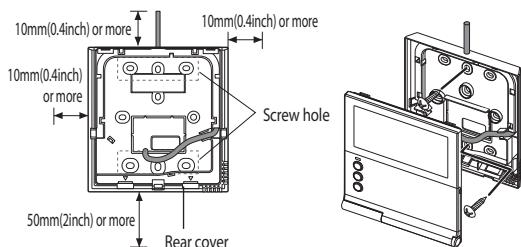
<When the cable is not concealed>

<When the cable is concealed>

Wired Remote Controller Installation

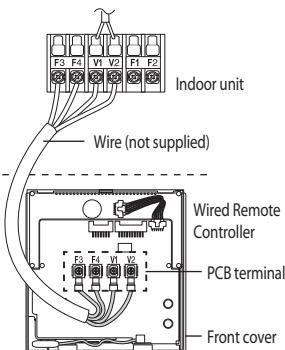
Wired Remote Controller Installation

3. Using more than two screws, firmly affix the rear cover of the remote controller to the wall, and then connect the power(V1, V2) and communication cables(F3, F4), making sure these cables have reasonable length, to the terminal at the back of the cover.



* Before fixing the rear cover, secure at least 10mm(0.4inch) space of upper side, left side, right side, and 50mm(2inch) space of bottom side.

* You must fit the screws into the screw holes.



* Do not tighten the screws on the PCB terminal with excessive force.

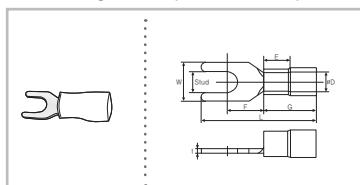
4. Reassemble your Wired Remote Controller.



- Align the controller with the upper groove first, and insert it by turning it downward as shown in the figure.
After assembly, check and confirm that no wires are stuck in the gap between the rear and front cover.



- When installing a Wired Remote Controller by using a cable longer than 10m, you must install the communication cable and the power cable separately. (Electrical interference can cause your Wired Remote Controller to malfunction.)
- When installing your Wired Remote Controller on the wall, consider the size of the wire hole, and select a wire with a proper thickness.
- Wire that is connectable to Wired Remote Controller PCB.
 - If you install the Wired Remote Controller by reclaiming, install it according to U-terminal cable specification.
 - If you install the Wired Remote Controller by using four pieces of PVC wire, remove the 30cm(12inch) of the sheath of the cable and install it only with the four pieces of wires. (Recommended specification: AWG21)
- The following are the specs of the compression ring terminal connected to your Wired Remote Controller PCB.

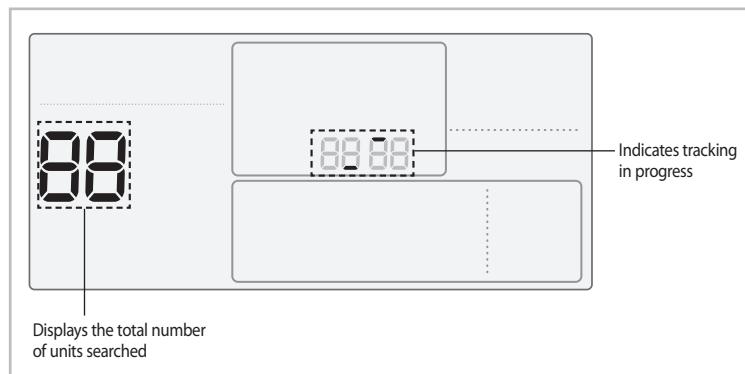


AWG	mm ²	mm ²	mm	t	Basic Size (mm)					
					Stud Size	ØD	G	E	F	W
22~16	0.25~1.65	1.5	3	0.7	3.8	10.0	4.5	6.5	6.0	21.2

* Maximum distance for connecting communication and power cable: 100m

- Screws on the PCB terminal must be tightened with less than 6N·cm tightening torque. If the tightening torque is greater, it may damage the screw thread.

Tracking Your Indoor Unit from the Wired Remote Controller



1. Tracking of your Wired Remote Controller will automatically start when you turn on the power after installation.
2. If you want to perform tracking again after installation, then press the **Esc** and **Delete** buttons at the same time for more than five seconds.
 - ▶ The system will reset, and tracking will start again.
3. During tracking, the total number of currently searched indoor units and ventilator(ERV) will be displayed.



CAUTION

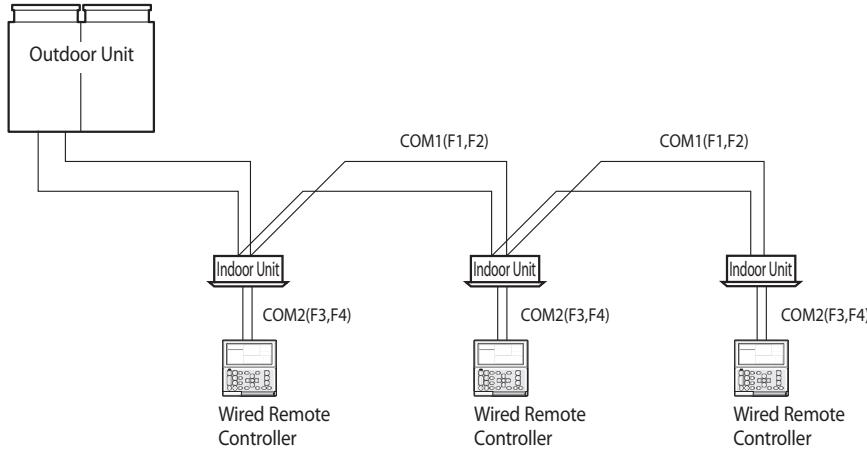
- If you want to perform tracking again after installation, then press the **Esc** and **Delete** buttons at the same time for more than five seconds.
- Only the master Wired Remote Controller can display the total number of indoor units and ventilator(ERV).
 - Slave Wired Remote Controllers do not display the total number of units.

Wired Remote Controller Installation

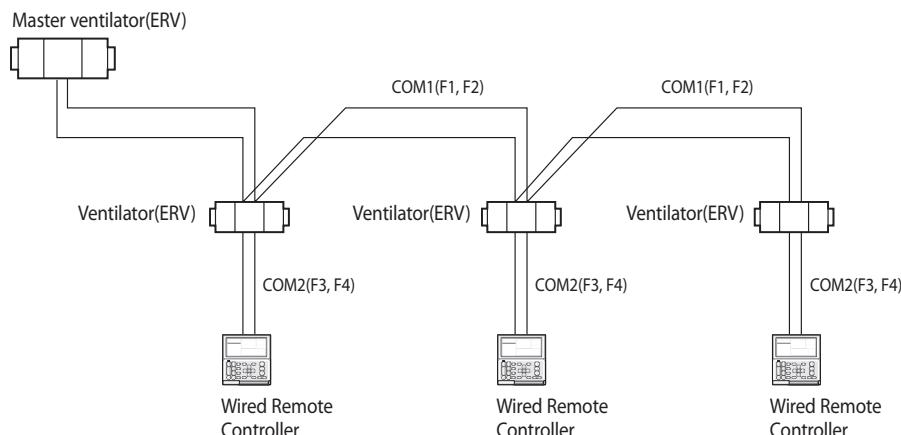
Individual Control with Your Wired Remote Controller

- Individual control means that you are using one remote controller to control one indoor unit or ventilator(ERV).

When Connected to an Indoor Unit Only



When Connected to an ventilator(ERV) Only



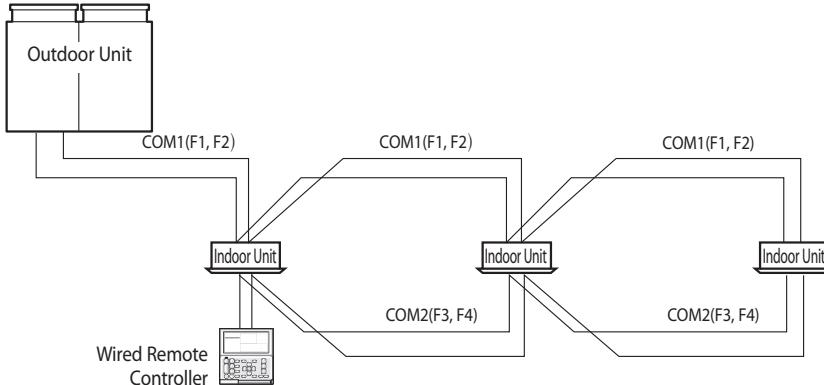
- Regardless of the indoor group address (RMC address) or the ventilator(ERV) group address, only the indoor unit connected to COM2 is individually controlled.
- The power cable (V1, V2) is not connected between indoor units.

Group Control with Your Wired Remote Controller

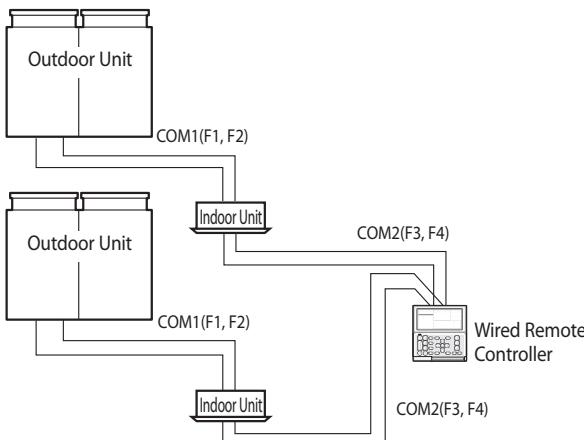
- Group control means that you are using one Wired Remote Controller to control two or more indoor units and ventilator(ERV) at the same time.

When Connected to an Indoor Unit Only

- (1) Using One Wired Remote Controller to control three indoor Units



- (2) Using One Wired Remote Controller to control indoor units connected to different outdoor unit



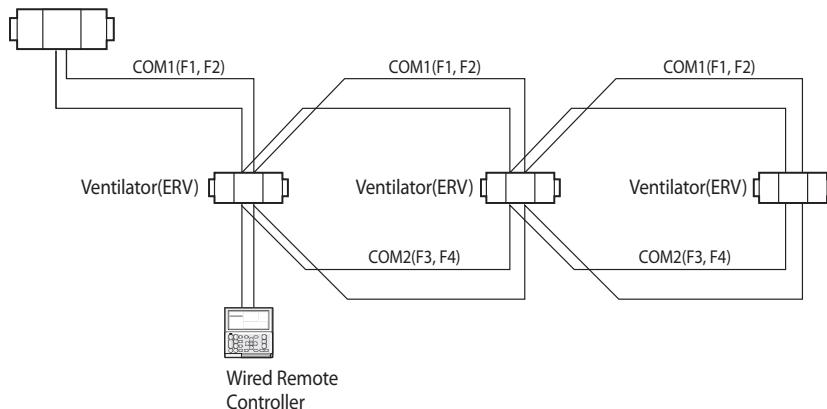
- Regardless of the indoor unit's group address (RMC address), only the indoor units connected to COM2 are controlled in group.
- The power cable (V1, V2) is not connected between indoor units.
- The power cable for your Wired Remote Controller (V1, V2) should be connected to only one indoor unit.
- Regardless of your outdoor units, you can control a maximum of 16 indoor units as a group.

Wired Remote Controller Installation

When Connected to an ventilator(ERV) Only

(1) Using One Wired Remote Controller to Control Three ventilator(ERV)

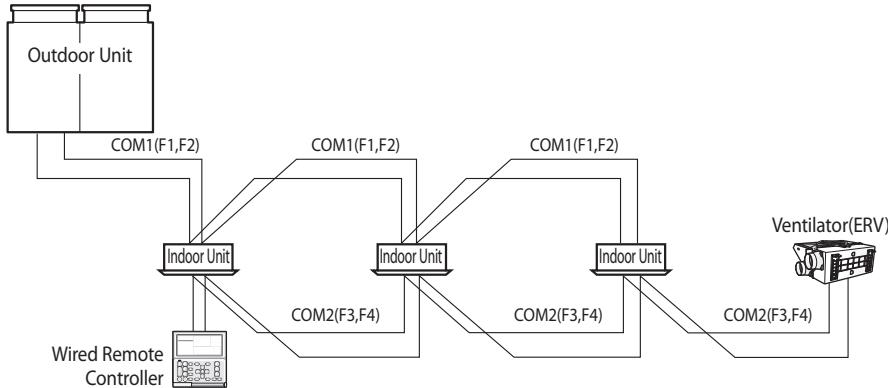
Master ventilator(ERV)



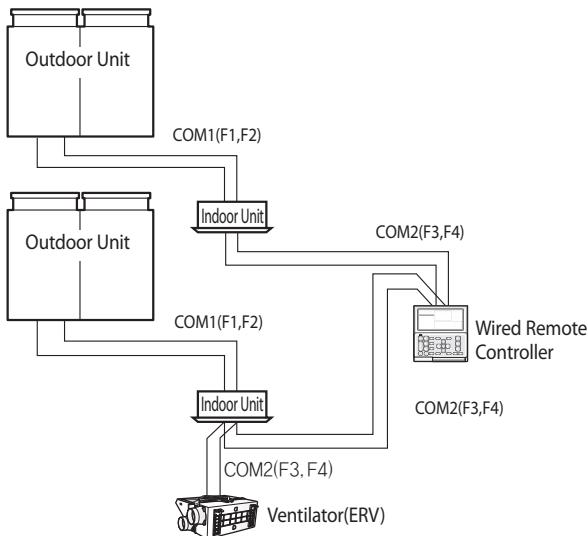
- Regardless of the ventilator(ERV)'s group address (RMC address), only the ventilator(ERV) connected to COM2 controlled in group.
- The power cable (V1, V2) is not connected between ventilators(ERV).
- The power cable for your Wired Remote Controller (V1, V2) should be connected to only one ventilator(ERV).

When Connected to an Indoor Unit and an ventilator(ERV) together

(1) Using One Wired Remote Controller to control multiple indoor units and ventilator(ERV)



(2) Using One Wired Remote Controller to control indoor units connected to different outdoor unit and ventilator(ERV)



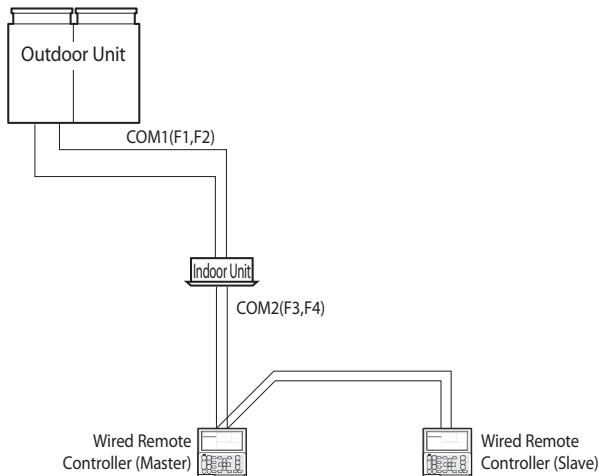
- Regardless of the indoor unit's group address (RMC address), only the indoor units and ventilator(ERV) connected to COM2 are controlled in group.
- When controlling indoor units and ventilator(ERV) together in group, you can control maximum of 16 indoor units and ventilator(ERV).
- If you want to use the power saving function, you have to connect Wired Remote Controller to only one indoor unit and one ventilator(ERV).
- The power cable (V1, V2) is not connected between indoor units.
- The power cable for your Wired Remote Controller (V1, V2) should be connected to only one indoor unit.

Wired Remote Controller Installation

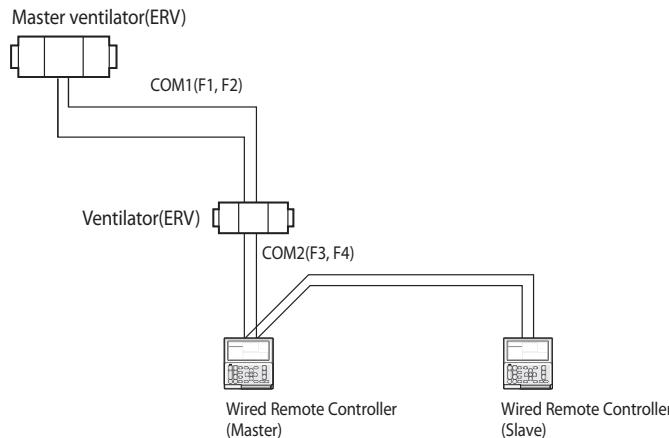
Controlling 2-Remote controller

- 2-Remote controller is controlling one indoor unit, ventilator(ERV) or one group of indoor units and ventilator(ERV) with two remote controllers.

When Connected to an Indoor Unit Only

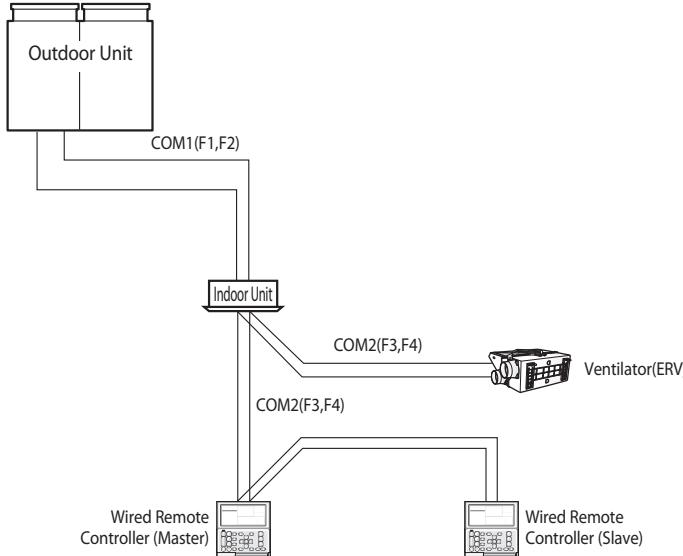


When Connected to an ventilator(ERV) Only



- For the slave Wired Remote Controller settings, please refer to the sections about the additional functions of the Wired Remote Controller. (Refer to page20)
0 : Master, 1 : Slave

When Connected to an Indoor Unit and an ventilator(ERV) Together



- Regardless of the indoor unit group address (RMC address), only the indoor units connected to COM2 are controlled by 2-remote controller.
- For the slave Wired Remote Controller settings, please refer to the sections about the additional functions of the Wired Remote Controller. (Refer to page20)
0 : Master, 1 : Slave

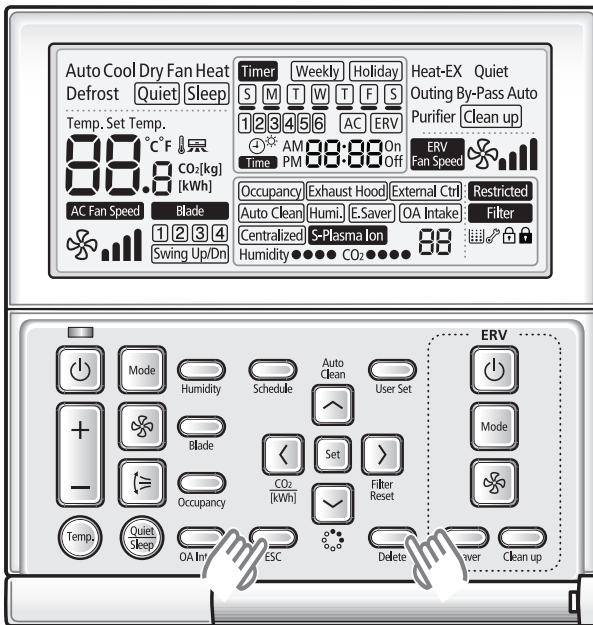
Wired Remote Controller Installation

Initializing Your Wired Remote Controller Communication

If the number of indoor unit or ventilator(ERV) is decreased while you are using your remote control to control one indoor unit, ventilator(ERV) or a group of indoor units and ventilator(ERV), then you need to initialize your remote controller communication.

1. Press the **Esc** and **Delete** buttons at the same time for more than five seconds.

- Your Wired Remote Controller will be initialized, and the device will search for the indoor units/ventilator(ERV) connected to your Wired Remote Controller again.



Errors Displayed on Your Wired Remote Controller

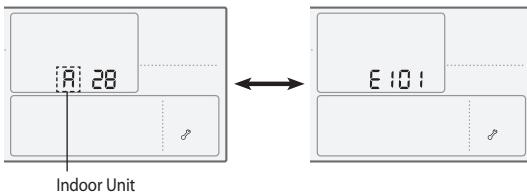
- ▶ Error codes for the Wired Remote Controller and the product connected to your Wired Remote Controller will be displayed in the LCD display.



LCD Display

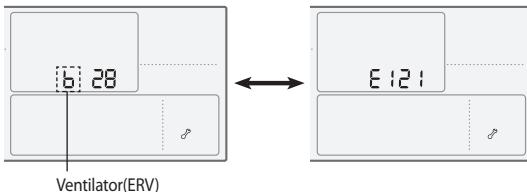
When an Error Occurs in Your Indoor/Outdoor Units (Product Group Display: A)

- ▶ The product address for the error will be displayed, followed by the error code.
Example : Error 101 occurs for Indoor Unit No. 28.



When an Error Occurs in Your Ventilator(ERV) (Product Group Display: B)

- ▶ The product address for the error will be displayed, followed by the error code.
Example : Error 121 has occurred at ventilator(ERV) No. 28.



When an Error Occurs in Your Wired Remote Controller

- ▶ Only an error code will be displayed. (No address will be displayed.)
Example : Error 601 has occurred at your Wired Remote Controller.



Wired Remote Controller Installation

Wired Remote Controller Error Codes

Display	Description
601	Communication error between wired remote controller and indoor/ERV units after successful communication.
602	No communication between Master(Main) and Slave(Sub) wired remote controllers.
604	No communication between wired remote controller and indoor/ERV units
606	Wired remote controller is connected on F1/F2 channel.
607	Two or more wired remote controllers is set as Master(Main).
608	No ERV unit installed for interlocking function.
609	No indoor unit installed for interlocking function.
618	Over 16 indoor/ERV indoor units installed.
619	Indoor units of different temperature setting(°C/°F) connected to same wired remote controller.
620	Wired remote controller(s) has different temperature unit setting with indoor unit(s).
621	Slave(Sub) wired remote controller has different option setting with Maser(MAIN).

Display	Description
627	Two or more wired remote controllers set as Slave(SUB).
630	No By-Pass function on ERV unit but wired remote controller is set to use By-Pass.
631	No Auto function on ERV unit but wired remote controller is set to use Auto.
653	Temperature sensor Open/Short error.
654	- Memory error. - No damper feedback.

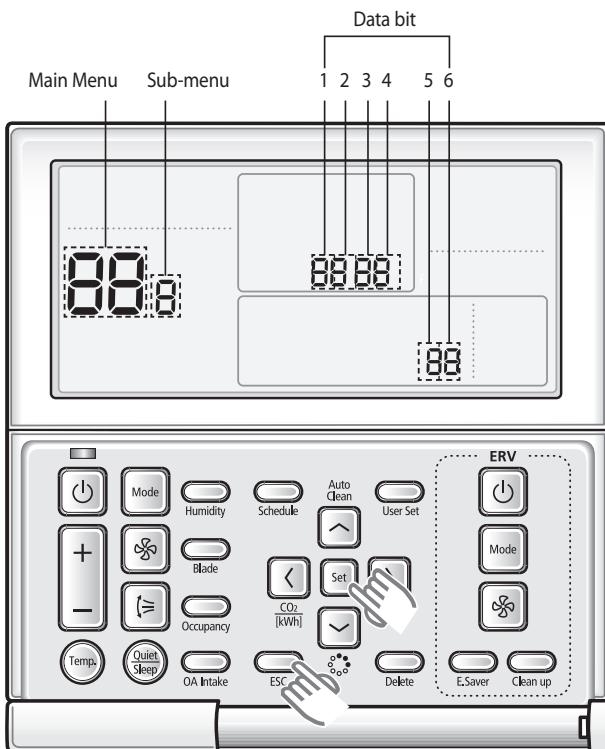


CAUTION

- For the error codes for your indoor/outdoor units and ventilator(ERV), refer to the installation manual of each device.

Wired Remote Controller Installation/Service Mode

Additional Functions of Your Wired Remote Controller



1. If you want to use the various additional functions for your Wired Remote Controller, press the **Set** and **Esc** buttons at the same time for more than three seconds.
 - ▶ You will enter the additional function settings, and the [main menu] will be displayed.

2. Refer to the list of additional functions for your Wired Remote Controller on the next page, and select the desired menu.
 - ▶ Using the [**▲**]/[**▼**] buttons, select a main menu number and press the [**>**] button to enter the sub-menu setting screen.
 - ▶ Using the [**▲**]/[**▼**] buttons, select a sub-menu number and press the [**>**] button to enter data setting screen.
 - ▶ When you enter the setting stage, the current setting will be displayed.
 - ▶ Refer to the chart for data settings.
 - ▶ Using the [**▲**]/[**▼**] buttons, select the settings. Press the [**>**] button to move to the next setting.
 - ▶ Press the **Set** button to save the settings and exit to the sub-menu setting screen.
 - ▶ Press the **Esc** button to exit to normal mode.



NOTE

- While setting the data, you can use the [**<**]/[**>**] buttons to set the range of Data bit.
- While configuring the setting, press the **Esc** button to exit to the setting sub-menu without saving your changes.

Wired Remote Controller Installation/Service Mode

Additional Functions of Your Wired Remote Controller



- 'NONE' will be displayed if the indoor unit does not support the function.
In some cases, the setting may not possible or it may be not applied though it is set on the unit.
- If communication initialization is needed after the setting, the system will reset automatically and communication will be initialized.

Main menu	Sub menu	Function	Data bit	Factory setting	Description	Unit
1	1	Wireless remote controller Option setting/checking (1)	Cooling/Heating selection	1	0	0 – Cooling/Heating, 1 – Cooling only
			Use of wireless remote controller	2	1	0 – No use, 1 – Use
			MAIN/SUB wired remote controller	3	0	0 – MAIN, 1 – SUB
			Temperature unit	4	0	0 – Celcius(°C), 1 – Fahrenheit(°F)
	2	Wireless remote controller Option setting/checking (2)	Temperature sensor selection	1	0	0 – Indoor unit, 1 – Wired remote controller
			Use of average temperature	2	0	0 – No use, 1 – Use
			Use of Auto mode	3	1	0 – No use, 1 – Use
			Temperature display	4	0	0 – Set temperature, 1 – Room temperature
			AC On/Off button function	5	0	0 – Indoor unit + ERV, 1 – Indoor unit only, 2 – ERV only
	3	Blade setting/checking	Lock of Blade1	1	0	0 – Unlock, 1 – lock
			Lock of Blade2	2	0	0 – Unlock, 1 – lock
			Lock of Blade3	3	0	0 – Unlock, 1 – lock
			Lock of Blade4	4	0	0 – Unlock, 1 – lock
	4	ERV option Setting/checking	Use of By-Pass mode	1	0	0 – No use, 1 – Use
			Use of Auto mode	2	0	0 – No use, 1 – Use
			Use of air purification mode	3	0	0 – No use, 1 – Use
			Use of external control	4	0	0 – No use, 1 – Use
	5	Room Temperature compensation	Temperature control reference	1,2,3	0	-9 ~ 40(°C)
			Temperature compensation value	4,5,6	0	-9.9 ~ 9.9(°C)
	6	Number of connected units	Number of indoor units	1,2	-	0 ~ 16
			Number of ERVs	3,4	-	0 ~ 16
	7	Temperature increment/decrement (°C only)	1	0	0-1°C, 1-0.5°C, 2-0.1°C	
			Factory option setting	1	0	0 – Unchanged 1 – Factory setting
2	1	Software code	1~6	-	Software code	
	2	Software version	1~6	-	Software version	
3	1	Indoor unit room temperature	1,2,3	-	Room temperature	°C
	2	Indoor unit EVA IN temperature	1,2,3	-	EVA IN temperature	°C
	3	Indoor unit EVA OUT temperature	1,2,3	-	EVA OUT temperature	°C
	4	Indoor unit EEV step	1,2,3	-	EEV step	-
	5	Indoor unit option checking (1)	Use of central control	1	-	0 – No use, 1 – Use
			Use of drain pump	2	-	0 – No use, 1 – Use
			Use of electric heater	3	-	0 – No use, 1 – Use
			Use of hot water coil	4	-	0 – No use, 1 – Use
	6	Indoor unit option checking (2)	Use of external control	1	-	0 – No use, 1 – Use
			Use of RPM compensation	2	-	0 – No use, 1 – Use
			Filter time	3	-	0 – 2000 hours, 1 – 1000 hours
			Heating temperature compensation	4	-	0-2°C, 1-5°C
			EEV stop step in heating	5	-	0 – 1/80 steps, 1 – 80

Main menu	Sub menu	Function	Data bit	Factory setting	Description	Unit
4	1	Indoor unit main address checking	1,2	-	Main address (0~63)	-
		Indoor unit main address setting (outdoor unit reset is needed to set)	3,4	-	Main address (0~63)	-
	2	Indoor unit RMC address setting/checking	5,6	-	RMC address (00H~2FH)	-
	3	Indoor unit option code setting/checking	1)*	-	Indoor unit option code	-
	Indoor unit option switch setting/checking	1)*	-	Refer to the indoor unit installation manual for details	-	
5	1	AHU setting/checking	Setting/checking the differential value	1,2	0~30	1
			RPM setting/checking	3,4	0~25	1 RPM
			filter performance	5	1 - Medium performance 2 - High performance	-
		humidity setting/checking	6	-	0 ~ 30, 1 ~ 40, 2 ~ 50	-
	2	AHU discharge temperature setting/checking	Use of discharge temperature control	1	0 - No use, 1 - Use	-
			Cooling discharge temperature	3,4	10 ~ 25°C	1°C
		Fresh Duct discharge temperature checking	Heating discharge temperature	5,6	28 ~ 43°C	1°C
		Cooling discharge temperature	1,2	-	15 ~ 25	1°C
		Heating discharge temperature	3,4	-	18 ~ 30	1°C
		Use of cold air prevention	1	-	0 - No use, 1 - Use	-
6	1	ERV Plus setting/checking	Use of humidification when Heating thermo off	2	0 - No use, 1 - Use	-
			Use of fan operation in Defrost	3	0 - No use, 1 - Use	-
			Use of humidification when Heating	4	0 - No use, 1 - Use	-
		ERV Plus temperature setting/checking	Cooling	1,2	15 ~ 30°C	1°C
		ERV Plus Auto mode	Heating	3,4	15 ~ 30°C	1°C
		temperature setting/checking	Set temperature	1,2	15 ~ 30°C	1°C
		Setting/checking the compensating temperature A under the Heating EEV control for ERV Plus	Set temperature difference	3,4	5 ~ 15°C	1°C
		Checking the compensating temperature B under the Heating EEV control for ERV Plus		1,2	0 ~ 10°C	1°C
		ERV Plus fan RPM setting/ checking	Air supply RPM	3,4	0 - Non use of humidifier(0°C) 1 - Use humidifier(10°C)	-
			Air exhaustion RPM	1,2	10 ~ 27 RPM	1 RPM
0	Factory setting					10 ~ 27 RPM

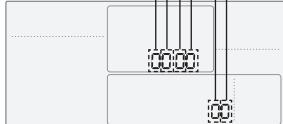
1)* The total option codes are 24 digits. You can set six digits at a time and it is distinguished by page number.

Press [>] button to go to the next page.

Page number

Option Code

1 2 3 4 5 6



SEG1	SEG2	SEG3	SEG4	SEG5	SEG6
0	*	*	*	*	*

Page number

SEG13	SEG14	SEG15	SEG16	SEG17	SEG18
2	*	*	*	*	*

Page number

SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
1	*	*	*	*	*

Page number

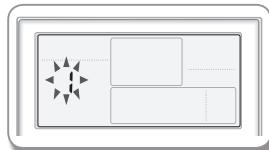
SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
3	*	*	*	*	*

Page number

* Regardless of Celsius and Fahrenheit setting, service mode setting is available only with Celsius.

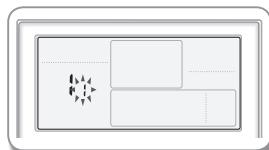
Wired Remote Controller Installation/Service Mode

The example of Wired Remote Controller option setting method



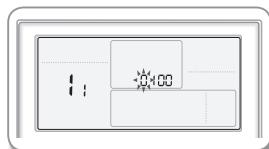
1. Press **Set** and **ESC** buttons at the same time for more than 3 seconds.

► (Main menu) will be displayed and then press the [**Λ**]/[**∨**] button to select no.1.



2. Press [**>**] button to select the number you will set.

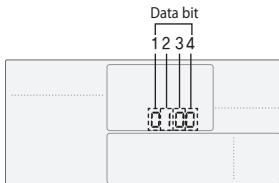
► Press [**Λ**]/[**∨**] button and select no.1



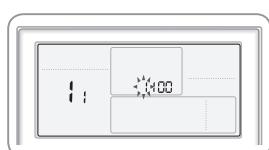
3. Press [**>**] button to enter the data setting stage.

► When you enter the setting stage, the current setting value will be displayed.

Example of data setting stage display



- Data1: Both cooling and heating of an indoor unit
- Data2: Use wireless remote controller
- Data3: Master wired remote controller
- Data4: Temperature display – Celsius (°C)



4. Press [**<|**]/[**>**] button to select the desired Data1.

► Press [**<|**]/[**>**] button to select no.1.

► The wired remote controller option is set from both cooling and heating to cooling only.

5. Press **Set** button to complete the option setting.

► Save the setting value and exit to sub menu.

6. Press **Esc** button to exit to normal mode.

Memo

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